



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,803	05/09/2001	Richard Donald Berg	12929.1061US01	3572

23552 7590 09/22/2003

MERCHANT & GOULD PC
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER

COCKS, JOSIAH C

ART UNIT	PAPER NUMBER
----------	--------------

3743

DATE MAILED: 09/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/851,803

Applicant(s)

BERG, RICHARD DONALD

Examiner

Josiah C. Cocks

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on response filed 7/7/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 3743

DETAILED ACTION

Response to Request for Reconsideration

1. Receipt of applicant's Request for Reconsideration filed 7/7/03 is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 7, 8, 12, 15, 17-24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* (US # 4,965,707) in view of *Butler et al.* (US # 6,53,165) (cited by applicant in IDS paper #5) and "Glass" article from Microsoft®Encarta® Online Encyclopedia 2003 (hereinafter "the glass article").

Butterfield discloses in Figures 1-7 a method and apparatus for electrically simulating glowing embers within a fireplace substantially as described including an enclosure (2) defining a chamber (3), a support structure in the form of a translucent plate (see col. 3, lines 15-17) having an ember support surface (9), said support surface being disposed within the chamber (see Fig. 1), a plurality of translucent artificial embers/coals (8) in the form of colored glass that are loosely supported on the support surface (see col. 3, lines 14-16), and a light source (11)

Art Unit: 3743

disposed within the chamber and positioned to pass light through at least a portion of the support structure to illuminate the translucent artificial embers (see col. 3, lines 16-27).

In regard to the limitations of fused silica particles in the claims, while the claims are limiting to these fused silica particles applicant discloses in the specification on page 9 that, “[it] should be understood, however, that other translucent, high temperature material could also be used to make the translucent artificial embers.” In view of this disclosure by applicant, the examiner regards a high temperature glass as an equivalent material for translucent artificial embers. *Butterfield* discloses the use of glass embers in a fireplace that may produce a gas fire (see col. 1, lines 4-8) but does not teach that these glass embers are a high temperature material. However, *Butler et al.* teaches simulated electric glowing embers in the same field of endeavor as *Butterfield* wherein the embers of *Butler et al.* are incorporated in a gas fireplace with a gas burner and the artificial embers are in the form of a plate (24) that is placed above light sources (26 and 27) and the artificial embers are specifically made of high temperature glass (see col. 2, line 60 through col. 3, line 10).

In claims 8, 20, and 22, applicant further limits the material of the artificial embers to fused silica particles that may withstand temperatures of at least 3000 degrees Fahrenheit. As noted above, the high temperature glass artificial embers of *Butler et al.* are regarded as the equivalent of fused silica particles. Further, as noted in the glass article, page 2 section A.6. it is well known in the art that glass may have melting or softening temperatures ranging from 900 degrees Fahrenheit to 3180 degrees Fahrenheit. Therefore, as *Butler et al.* teaches the use of high temperature glass for artificial embers, it would be obvious in view of the melting point

Art Unit: 3743

ranges disclosed by the glass article that the melting point of this high temperature glass in *Butler et al.* would be on the higher side of the scale and would be at least 3000 degrees Fahrenheit.

Therefore, in regard to claims 1-3, 7, 8, 12, 15, 17-24, 26, and 27, it would be obvious to a person of ordinary skill in the art at the time the invention was made to modify the artificial embers to be made of the high temperature glass of *Butler et al.* because when a simulated glowing ember assembly is included in a gas fireplace using gaseous combustion the simulated ember assembly is subject to higher temperatures and must be made of a material that can withstand the temperatures associated with gaseous combustion. The use of high temperature glass is a material that can withstand these temperatures and still provides a translucent material that reflects light to simulate flowing embers (see *Butler et al.*, col. 1, lines 45-52).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and the glass article as applied to claim 1 above and further in view of *Auer* (US # 1,692,021).

Butterfield in view of *Butler et al.* and the glass article disclose all the limitations of claim 4 except that the ember support bed comprises a mesh screen.

Auer teaches a fireplace having artificial translucent embers supported on a wire mesh (21).

Therefore, in regard to claim 4, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the ember support bed of *Butterfield* to incorporate the wire mesh of *Auer* for the purpose of providing an equivalent alternative means for supporting the artificial embers horizontally above a light source such that light is projected

Art Unit: 3743

through the embers to simulate the appearance of actual burning embers (see page 1, lines 6-15 and 46-55).

5. Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and the glass article as applied to claims 1 and 15 above, and further in view of British patent 249,321 to White (hereinafter "*White*").

Butterfield in view of *Butler et al.* and the glass article disclose all the limitation of claims 5 and 16 except that the ember support bed comprises a perforated plate and a colored plate between the light source and artificial embers.

White teaches a fireplace having artificial translucent embers with a support plate (13) wherein the support plate may be clear or colored glass (see page 3, lines 59-60) or may be a perforated plate (see page 3, lines 65-67).

Therefore, in regard to claims 5 and 16, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the support bed of *Butterfield* to incorporate; the colored plate of *White* as a colored plate is a well known substitution for a clear plate for supporting artificial embers to provide the appearance of a simulated fire (see page 3, lines 59-64), and the perforated plate of *White* to allow the passage of heated air from a heat source beneath the ember support (see page 3, lines 65-67).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and the glass article as applied to claim 1 above, and further in view of British patent 2 072 832 to Busby et al. (hereinafter "*Busby et al.*").

Art Unit: 3743

Butterfield in view of *Butler et al.* and the glass article disclose all the limitations of claim 6 except possibly for a gas burner positioned above the ember support surface to provide flames and heat upon combustion. *Butterfield*, however, does disclose that his simulated fireplace may be used in conjunction with a heating appliance producing a gas fire (see col. 1, lines 4-8).

Busby et al. teach a fireplace having artificial elements (23) supported on a plate (17) and a gas burner (2) positioned above the support plate.

Therefore, in regard to claim 6, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the fireplace of *Butterfield* to incorporate the gas burner arrangement of *Busby et al.* as this arrangement allows the fireplace to both simulate the appearance of a wood burning fireplace by providing a flame above a simulated coal or fuel bed and provide a means to produce heat (see page 1, lines 31-63).

7. Claims 9, 10, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and the glass article as applied to claims 1 and 12 above, and further in view of *Whittaker et al.* (US # 4,726,351).

Butterfield in view of *Butler et al.* and the glass article disclose all the limitations of claims 9, 13, and 14, except possibly that the support structure defines at least one aperture to provide combustion air or combustion gas to the chamber. *Butterfield*, however, does disclose that his simulated fireplace may be used in conjunction with a heating appliance producing a gas fire (see col. 1, lines 4-8).

Art Unit: 3743

Whittaker et al. teach a simulated fireplace wherein a coal effect (40) functions as a collection of simulated embers and a support means for the embers and is arranged above a light source (52). *Whittaker et al.* further teach that the coal effect is used in conjunction with a gas burner wherein combustible air and gas are supplied through apertures (36C, 36D, 37C, 37D) in the coal effect (see col. 3, lines 55-65).

In regard to claim 10 and the limitation that the light source comprises components that withstand temperatures greater than 500 degrees Fahrenheit, as suggested by *Butterfield* (see col. 1, lines 4-8) and taught by *Whittaker et al.* it is well known that simulated fireplaces incorporate light source components near flame producing devices. Because of this proximity of the light source components to a flame (note particularly Fig. 1 of *Whittaker et al.*) it would be inherent that the components would be designed to withstand temperatures associated with a gas flame (i.e. 500 degrees Fahrenheit).

Therefore, in regard to claims 9, 10, 13, and 14, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the ember support of *Butterfield* to incorporate the support having combustion air and gas apertures as taught by *Whittaker et al.* for the desirable purpose of simulating the appearance of a natural flame by supplying combustion air and gas in a manner to produce a gas fire flame above the coal effect while preventing "sooting" (see col. 3, lines 55-61 and col. 4, lines 54-59).

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and the glass article as applied to claim 10 above and further in view of *Hess et al.* (US # 5,642,580).

Art Unit: 3743

Butterfield in view of *Butler et al.* and the glass article disclose all the limitations of claim 11 except possibly that the light source is a halogen lamp.

Hess et al. teach a flame simulating assembly incorporating a simulated fuel/ember bed (26) illuminated by a light source (30) wherein the light source is a halogen lamp (see col. 3, lines 27-30).

Therefore, in regard to claim 11, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the light source of *Butterfield* to be a halogen lamp as taught by *Hess et al.* as it is well known in the art that in a simulated flame assembly incorporating a simulated ember bed and a light source for desirably illuminating the bed to resemble embers of a log burning fire the light source may be a halogen lamp (See col. 3, lines 8-11).

9. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and the glass article as applied to claim 24 and further in view of *Rehberg* (US # 5,195,820).

Butterfield in view of *Butler et al.* and the glass article disclose all the limitations of claim 25 except possibly that a portion of the surfaces of the translucent artificial embers are dusted with paint.

Rehberg teaches a simulated fireplace having translucent artificial embers (20) wherein the undersurface of the embers are painted (see col. 3 lines 25-28).

Therefore, in regard to claim 25, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the embers of *Butterfield* to incorporate

Art Unit: 3743

the painting of *Rehberg* for the desirable purpose of causing the embers to appear as an accurate simulation of the underlog glowing embers of a wood-burning fireplace (see *Rehberg*, col. 3, lines 26-31).

Response to Arguments

10. Applicant's arguments filed 7/7/03 have been fully considered but they are not persuasive.

Applicant first contends that *Butterfield* does not suggest placing translucent artificial embers in a fireplace producing a gas fire and would not be combinable with *Butler*. In response to this argument that, the examiner notes the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). *Butterfield* clearly identifies on column 1, lines 4-8 that his flame simulation apparatus may be embodied in a heating appliance that produces a gas fire. *Butler* teaches a flame simulation apparatus in the same field of endeavor where *Butler* explicitly notes that when used in conjunction with a heating appliance producing a gas flame simulated embers are preferably made of a high-temperature glass for the purpose of withstanding high temperatures when used in a gas fireplace combustion chamber. A person of ordinary skill in the art would reasonably regard the teachings of *Butler* concerning using high temperature glass in a gas fireplace to be

Art Unit: 3743

relevant to *Butterfield's* simulated embers when used in a heating appliance producing a gas flame.

Applicant also argues that *Butler* does not teach the use of a plurality of translucent artificial embers but instead a single plate (24) with glowing ember patterns (24A). The examiner considers the multiple glowing ember patterns (24A) to be a plurality of embers as these patterns serve to create the appearance of a bed of glowing embers (see *Butler*, col. 1, lines 36-38).

Applicant also argues that *Butler* does not teach that his ember pattern may be used in a hot environment. This argument is not well taken. *Butler* clearly identifies that the ember patterns are made of high temperature glass for the purpose of being resistant to high temperature when operated in the combustion chamber of a gas fireplace (see *Butler*, col. 1, lines 45-48).

Applicant further argues that there is no suggestion in the glass article to modify the flame simulation device of *Butterfield*. However, it is noted the glass article is cited simply to show that a person of ordinary skill in the art would reasonably understand the high-temperature glass of *Butler* to be able to withstand the temperatures claimed by applicant.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 3743


the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is (703) 305-0450. The examiner can normally be reached on weekdays from 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett, can be reached at (703) 308-0101. The fax phone numbers for this Group are (703) 308-7764 for regular communications and (703) 305-3463 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

jcc
September 18, 2003


JOSIAH COCKS
PATENT EXAMINER
ART UNIT 3743